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SEP 27 2010

Ref: EPR-N

David Skeen, Acting Deputy Director
U.S. Nuclear Regulatory Commission
Environmental Protection and Performance Assessment Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
Mail Stop TWB-05-B01
Washington, D.C. 20555-0001

Re: NUREG – 1910, Supplement 1
Environmental Impact Statement, Final Report
Moore Ranch ISR Project, Campbell County, Wyoming
CEQ# 20100337

Dear Mr. Skeen:

The U.S. Environmental Protection Agency (EPA) has reviewed the Nuclear Regulatory Commission's (NRC) final Supplemental Environmental Impact Statement (SEIS) for the Moore Ranch ISR Project. The SEIS considers the environmental impacts that would be connected with NRC's issuance of a license to possess and use source material for uranium milling at the Moore Ranch ISR Project. Our review and comments are provided pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(c) and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609.

EPA appreciates the willingness that NRC has shown to address our comments on the Moore Ranch draft SEIS. From our initial meeting in Denver on March 30, 2010 and during subsequent monthly teleconferences, NRC has made efforts to consider EPA's perspective and concerns. Those efforts are reflected in the final SEIS, which provides a more complete analysis of the Moore Ranch ISR project than the draft SEIS. Comments provided in this letter address key areas of improvement as well as EPA's continuing concerns with the SEIS. We hope this information will be of assistance to NRC as you move forward with this licensing decision and toward completion of future ISR-related SEISs.

One of EPA's primary concerns with the draft SEIS was the inadequate analysis of a range of reasonable wastewater disposal alternatives for the project. In its response to EPA comments, NRC maintains that it is not required to analyze a range of alternatives, and in the Moore Ranch final SEIS, the alternatives analysis is generally limited to the proposed action and the no action alternatives. As we have discussed, EPA believes NEPA and its implementing regulations require NRC to use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon

human health and the environment. See 42 U.S.C. § 102(2)(E), 40 C.F.R. §§ 1500.2(e), 1502.14, 1502.16. We do acknowledge NRC's attempt to be responsive to EPA's comments in this regard and expand on the range of alternative wastewater disposal options to include methods or technologies not contained within the proposed license application. EPA appreciates the additional information on wastewater disposal alternatives provided in Section 2.1.1.2 and Table 2-3 of the final SEIS. We also were pleased to see in Section 4.14.1.2 some additional site-specific discussion of the impacts from alternative wastewater disposal options.

However, EPA is concerned that the discussion regarding potential environmental impacts associated with waste management in the final SEIS remains very general and offers mostly presumptive reliance upon State-permitting programs for environmental impact assessment and mitigation. In particular, the final SEIS does not contain adequate information for a thorough comparative assessment for the management of liquid wastes during recovery operations and aquifer restoration. EPA is aware of NRC's position that it has no authority or regulatory control over an applicant's selection of any particular technology to be used at a site and that if the NRC decides to grant the license request, an applicant must comply with the license, NRC regulatory requirements, and any other applicable, relevant, or appropriate local, State or Federal requirements to operate their facility. However, an agency's regulatory authority, or lack thereof, should not preclude full disclosure, under NEPA, of potential constraints and environmental impacts associated with all reasonable alternatives to a proposed action.

NRC summarily concludes that prospective issuance of a State permit will ensure that impacts will be small. EPA is concerned about leaving important details out of the discussion of potential impacts to groundwater resources and not fully informing the public and the decision-makers.

The final SEIS discussion of alternative wastewater disposal options acknowledges the potential limitations of the available by-product waste disposal capacity in the local area, yet does not address the potential limitations related to obtaining necessary injection well authorizations. Specifically, the final SEIS does not provide a thorough discussion of the constraints and potential impacts associated with the proposed use of Class I wells to inject wastewaters into the Lance/Fort Union or Teckla/Teapot/Parkman formations. For future ISR SEISs, a more thorough discussion of the requirements and limitations of obtaining a Class I injection well permit should be presented, including identification of potential siting constraints related to occurrence and depth of nearby potential USDWs. Additionally, some discussion of the process, limitations and potential impacts associated with an aquifer exemption should be presented, in the event one is necessary for wastewater disposal. In situations where Class I injection may not be an available option, such as at this site, a thorough discussion should be presented addressing the alternatives of Class V injection, including the requirements, process and limitations of obtaining a Class V injection well permit.

There are other examples in the final SEIS's evaluation of alternative wastewater disposal options where key information is not provided which limits the effectiveness of the alternatives

analysis. The limitations of the final SEIS's analysis (Section 4.14.1.2) leave the following important questions unanswered:

> Given NRC's acknowledgment in the SEIS of insufficient evaporation rates for the evaporation ponds and land application areas to dispose of all of the process wastewater without at least one other wastewater disposal option or storage capacity, what other disposal options are available or how would additional storage capacity be obtained?
>
> The SEIS states (4.14.1.2.1) the applicant would have to demonstrate prevention of migration of wastewater to the environment (soil, surface, and groundwater) and detection of any leakage that gets past the pond liner system. What are the detection limitations on monitoring systems and what impacts would be associated with significant leakage?

The alternatives analysis for future ISR SEISs should provide a better framework to identify the tradeoffs and finite limits to by-product disposal capacity for wastewater disposal options. The analysis in the final SEIS suggests that the by-product 'decommissioning-phase' wastes would be larger for the alternative wastewater disposal options and thus, impacts would be larger than for geologic disposal. EPA believes that the total amount of by-product wastes for the entire project life cycle would be greater for the geologic disposal option because of a much larger volume compared to the evaporated residual sediment needing off-site disposal. Alternative options other than geologic disposal merely shift the by-product disposal to the decommissioning phase whereas by-product disposal is occurring throughout all phases (operations, restoration, decommissioning).

EPA is pleased to see the detailed air emissions inventory for the construction, operation, and decommissioning phases. The analysis is straightforward and makes use of generally accepted values for source emission factors from reliable published sources. EPA recommends future ISR SEISs provide similar detailed information. If ISR facilities proposed in the future present a substantial increase in emissions or are located closer to more sensitive areas, such as population centers, nonattainment, sensitive Class II or Class I air regions, then a more quantitative approach to modeling direct impacts should be considered in consultation with relevant stakeholders.

EPA is involved in early scoping efforts for a regional technical study being conducted by the Bureau of Land Management to help evaluate the potential future cumulative impacts of surface coal mining, coalbed methane, and other energy-related development in the Powder River Basin (PRB). The study consists of multiple tasks including development of a forecast of reasonably foreseeable development (RFD) for coal, CBM, oil and gas, and ISR uranium industries in the PRB. In 2010, the second phase of the PRB energy review was initiated to update the RFD projections in line with new forecasts to year 2030. Best available modeling technology will be used to calculate predicted air quality effects. NRC may benefit from cooperating in this regional technical study that covers much of the Wyoming East uranium milling region.

EPA appreciates the opportunity to review the Moore Ranch final SEIS. We look forward to continued consultation with NRC regarding the uranium recovery program to support our broader national objectives of improving the prevention and mitigation of land and water impacts from the recovery of source or byproduct materials and ensuring the long-term isolation from the human and natural environment If you have any questions, please contact me at (303) 312-6004 or James Hanley of my staff at (303) 312-6725.

Sincerely,

Larry Svoboda, Director
NEPA Compliance and Review Program

cc: Larry Camper, Keith McConnell, Bill von Till, Kevin Hsueh, Behram Shroff, Alan Bjornsen
Eldon Allison, Kerry Agen, Kristin Yannone
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